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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) KAK-004	
	Application Number 10/018,571-Conf. #5012	Filed April 25, 2002	
	First Named Inventor Hiroaki Kitano et al.		
	Art Unit 2129	Examiner O. F. Fernandez Rivas	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>47,255</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> <p> _____ Signature Brian K. Dutton _____ Typed or printed name (202) 955-3750 _____ Telephone number December 22, 2006 _____ Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<input type="checkbox"/> *Total of <u>1</u> forms are submitted.			



Docket No.: KAK-004  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Hiroaki Kitano et al.

Application No.: 10/018,571

Confirmation No.: 5012

Filed: April 25, 2002

Art Unit: 2129

For: METHOD AND DEVICE FOR NETWORK  
INFERENCE

Examiner: O. F. Fernandez Rivas

**REQUEST FOR PRE-APPEAL BRIEF PANEL REVIEW OF FINAL REJECTION**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in full and timely response to the Office Action mailed on November 2, 2006. Reexamination in light of the amendments and the following remarks is respectfully requested.

Claims 18-39 are currently pending in this application, with claims 18, 27, 28, 29, 34, and 35 being independent.

**Rejection under 35 U.S.C. §112**

Paragraph 4 of the Office Action indicates a rejection of claims 30 and 36 under 35 U.S.C. §112, second paragraph.

In response, U.S. Patent and Trademark practice and procedures dictate that no after-final or proposed amendments may accompany a request for a Pre-Appeal Brief Conference. *Official Gazette* Notices, July 12, 2005.

Accordingly, please hold in abeyance the rejection of claims 30 and 36 under 35 U.S.C. §112, second paragraph until all other rejections have been addressed. The requirement

for an amendment to claims 30 and 36 or some other course of action will be reevaluated at that time.

**Rejection under 35 U.S.C. §101**

The Office Action includes a rejection of claims 18-28 under 35 U.S.C. §101.

This rejection is traversed at least for the following reasons.

**Claim 18** - Independent claim 18 is drawn to a *method of operating a data processing system*. See *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998). Also see, *Examination Guidelines for Computer-Related Inventions*, Official Gazette of the United States Patent and Trademark Office, Vol. 1300, No. 4, November 22, 2005.

Nevertheless, the Office Action fails to explain with particularly and clarity as to why method of operating a data processing system fails “to produce a real-world result” and is found to be nonstatutory subject matter, especially when claim 18 include the steps of:

providing an expression profile of a network,

generating network structures allowing said expression profile,

selecting network structures from said topology pool, adapting said parameters to said selected network structures, and computing said degrees of fitness,

storing said networks represented by triplets resulting from steps above in a triplet pool,

screening candidate networks from said triplet pool.

Clarification is respectfully requested.

**Claim 27** - As a rule, computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. Section 101 and must be

examined under 35 U.S.C. Sections 102 and 103. *In re Beauregard*, 53 F.3d 1583, 35 USPQ2d 1383 (Fed. Cir. 1995). Independent claim 27 is drawn to a computer program embodied on a computer readable medium. However, the Office Action fails to explain with particularity and clarity as to why a computer program embodied on a computer readable medium found to be nonstatutory subject matter.

Clarification is respectfully requested.

**Claim 28** - Independent claim 28 is drawn to a network estimation apparatus. However, the Office Action fails to explain with particularity and clarity as to why a network estimation apparatus is found to be nonstatutory subject matter. See *Ex parte Logan*, 20 USPQ2d 1465 (Bd. Pat. App. & Inter. 1991).

Clarification is respectfully requested.

### **Rejection under 35 U.S.C. §102**

Paragraph 8 of the Office Action includes a rejection of claims 18-23 and 25-28 under 35 U.S.C. §102 as allegedly being anticipated by U.S. Patent No. 5,148,513 to Koza et al. (Koza).

Paragraph 10 of the Office Action includes a rejection of claims 24-25 under 35 U.S.C. §103 as allegedly being unpatentable over Koza in view of U.S. Patent No. 5,761,381 to Arci et al. (Arci).

These rejections are traversed at least for the following reasons.

An Examiner's Note within the Office Action refers to page 4, lines 15-17, of the Applicant's specification for the meaning of the term "a network" (Office Action at page 6).

In response, page 4, lines 15-17, of the Applicant's specification relied upon by the Office Action is not admitted prior art. Instead, this passage is found within the SUMMARY OF THE INVENTION portion of the specification as originally filed. Thus, the Office Action

has impermissibly engaged in *hindsight* reconstruction by using the *Applicant's disclosure as a template* to fill the gaps within the teachings of Koza.

**Koza** - Regarding Koza, Figures 3A and 3B are flow charts of the processes for the invention of Koza.

Koza arguably teaches that process 1300 starts by the step Create Initial Populations 1321 which creates (typically randomly) a number of populations containing a number of programs (Koza at column 23, lines 33-35).

Koza arguably teaches that in steps 1302-1305, a population is *designated as an evolving population*, and the remaining populations are designated as environmental populations (Koza at column 23, lines 35-52).

Koza arguably teaches that, after assigning and associating, Remove Entity(s) with relatively low fitness, step 1314 causes the removal of some of the less fit members of the evolving population (Koza at column 23, lines 60-64). Koza arguably teaches that step 1316, Select Entity with relatively high fitness values, picks at least one entity to use in the following operation (Koza at column 23, line 67 to 24, line 2).

Koza arguably teaches that the newly created entities are inserted *into the evolving population* at 1370 and the process returns to the termination test 1303 (Koza at column 24, line 67 to 24, line 2).

However, Koza fails to disclose, teach, or suggest screened candidate networks being stored in a candidate triplet pool.

In this regard, the Office Action fails to show the presence within Koza of a *topology pool*, a *triplet pool*, and a *candidate triplet pool*.

**Arci** - Arci arguably teaches a computer system using genetic optimization techniques.

Specifically, Arci arguably teaches that the genetic optimization agent maintains a pool of genotypes 20, representing a current generation of solutions to the problem in question (Arci at column 3, lines 11-13).

Arci arguably teaches that the genetic optimization agent includes a breeding process 22, which processes the genotypes in the pool 20, to produce a set of new genotypes 23 (Arci at column 3, lines 18-19).

Arci arguably teaches that the genetic optimization agent further includes a selection process 26 which selects the best of the genotypes (both from the genotype pool 20 and the new genotype set 23), and places the selected genotypes in the genotype pool (Arci at column 3, lines 38-41).

In this regard, the Office Action fails to show the presence within Arci of a topology pool, a triplet pool, and a candidate triplet pool.

Withdrawal of these rejections and allowance of the claims is respectfully requested.

Dated: December 22, 2006

Respectfully submitted,

By 

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